Operationalizing GBS

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Thinking Globally...

"The essence of future tactical C4 capability is embodied in three essential prerequisites. First and foremost, the user must be pre-eminent in defining what **information** is needed. Second, efficient bandwidth utilization requires an information transmission and retrieval scheme that **only** transmits information that the user specifically needs or requests. Third, the identification, shipping instructions, and retrieval options must be sufficiently **flexible** to meet the user's rapidly changing mission requirements."

[&] Draft USACOM CAPSTONE REQUIREMENTS WHITE PAPER FOR JOINT TACTICAL COMMAND, CONTROL, COMMUNICATIONS AND COMPUTERS (C4) TO MEET THE NEEDS OF 2010 AND BEYOND

NOT!

…How GBS works;

…Technical characteristics of GBS;

…When a particular capability or GBS

Service will be delivered;

…What GBS “should have been”.

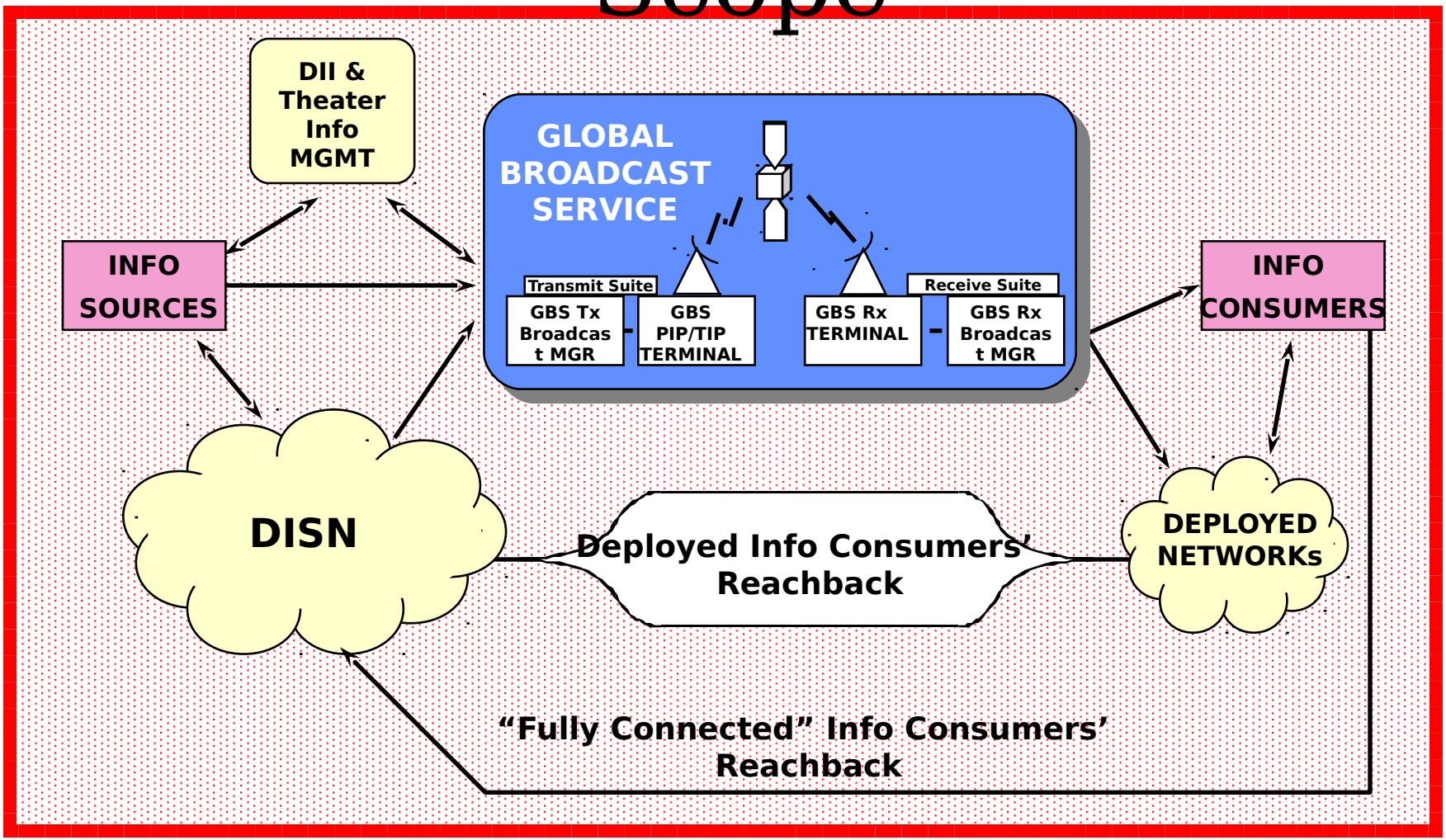
Operationalizing GBS

- Ops Readiness & Ops Test Readiness
- Elements that comprise OR/OTR
- JPO Activity
- What's not getting done.
- Suggest how to get it done.

Operational Readiness - a huge, hard-to-define task

- Start with a common view "Operational" characterization of GBS;
- Identify who <u>really</u> should be participants in the "operationalization" of GBS
- Define Responsible Parties
- Discuss Readiness <u>Elements</u>

GBS Ops Readiness Scope



OR Elements

- **Elements** currently being worked, facilitated, or monitored.
  - Doctrine
  - TTPs
  - User Training
  - IDM
  - JBC Assessment
  - RBM Deployment
  - OT Scenarios
  - SOPs
  - Metrics
  - Reporting
  - System Mgmt
  - C4I Integration
  - Source Integration
  - Help Desk
  - “User access”/tasking
  - Exercises
  - “Links” SC, SI, etc

GBS Users

- Terminology associated with GBS “Users”
  - Warfighter, disadvantaged, operator, end user, TIM, GIMB, source, planners, CTF, etc.

BUT, since we must use:

- Distinctly different approaches to meeting different User readiness requirements,

We should refine our terminology, therefore:

- Define three categories of GBS User

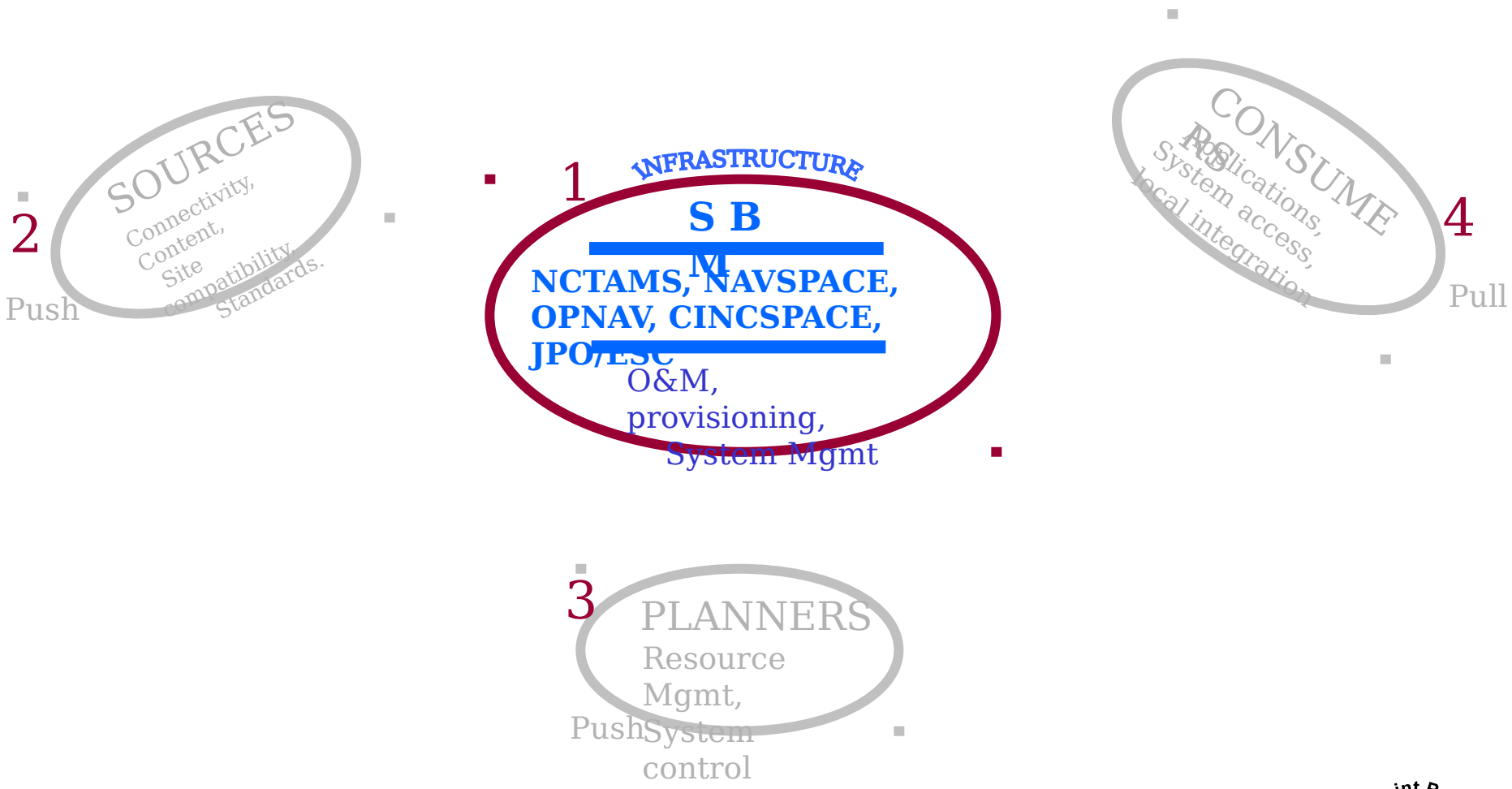
  - Source - Planner - Consumer

GBS User Categories

- Primary interest is broadcast content

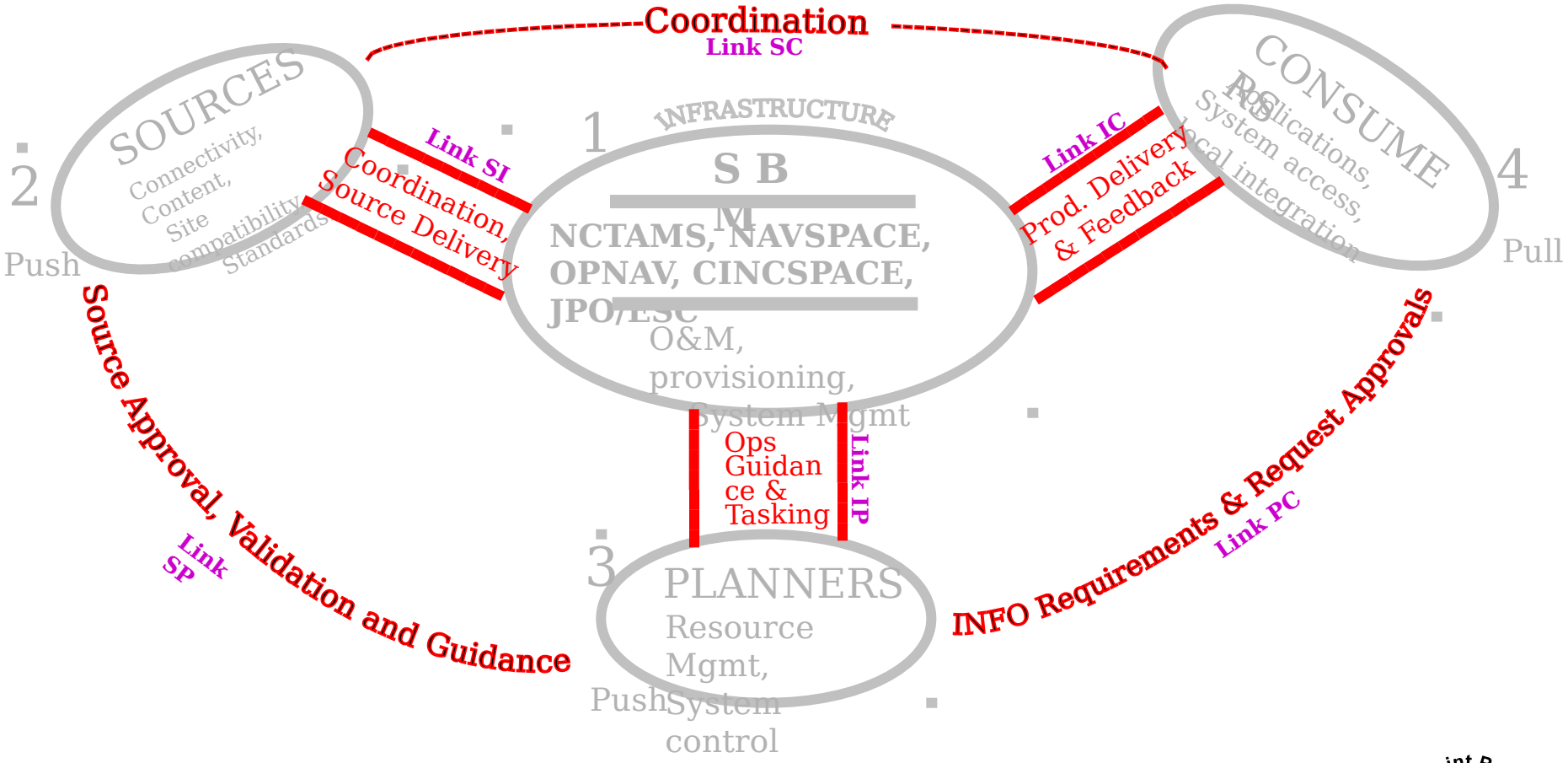
Infrastructure/Support

- Primary interest is making GBS work

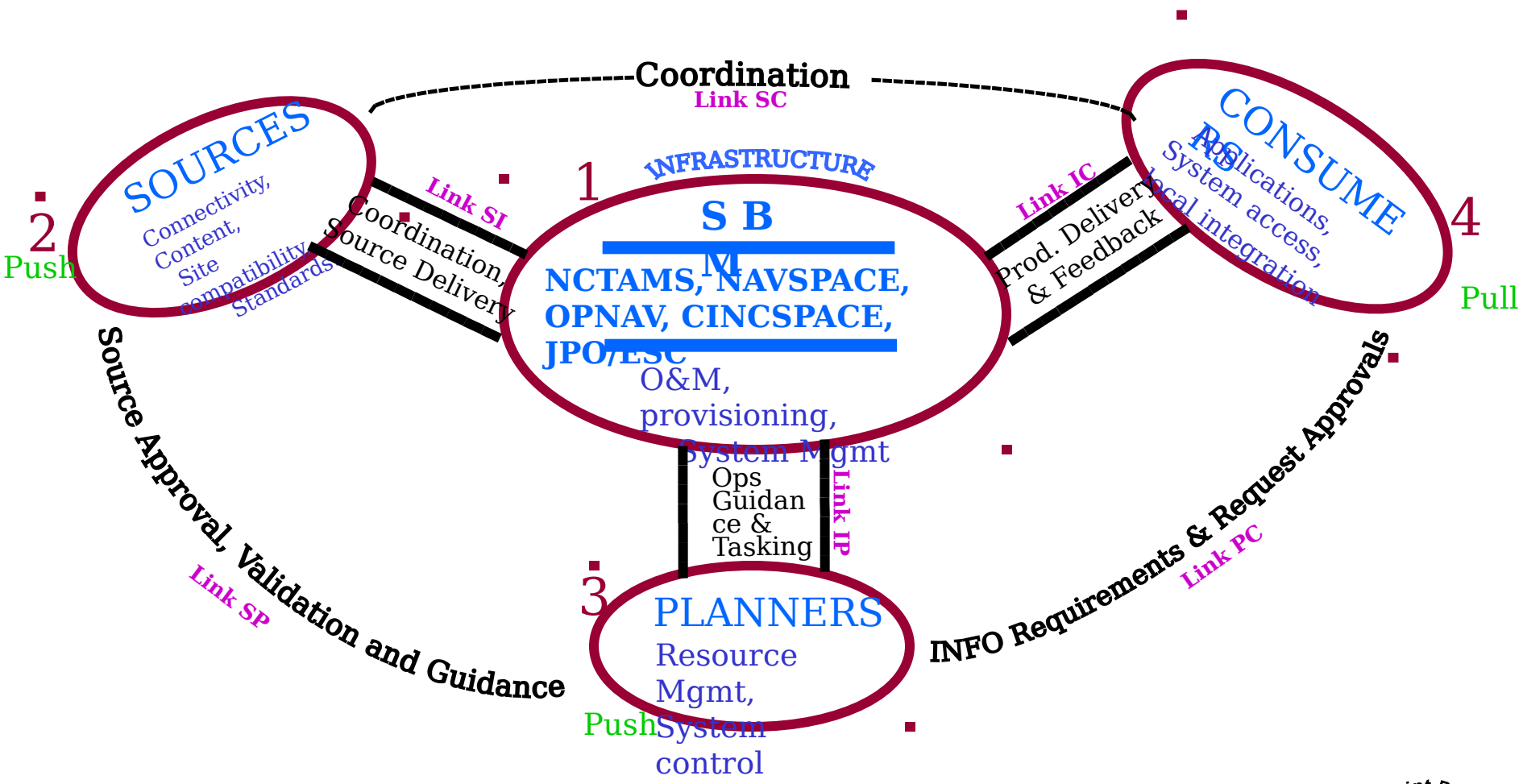


Relationships/Functional Links

- Connectivity reqmts and/or Chains-of-Authority between Responsible Parties



GBS - A Simple View



Operational (Test) Readiness Requirements & Activity

Q - How does the JPO know when the System is ready to be turned over to Operations?

A - We get Tested and Graded

OT&E

GBS Program Plan for Operational Test Readiness (OTR)

3. Identify & work the Elements that are expected to be part of the official Multi-service Operational Test & Evaluation (late CY00)

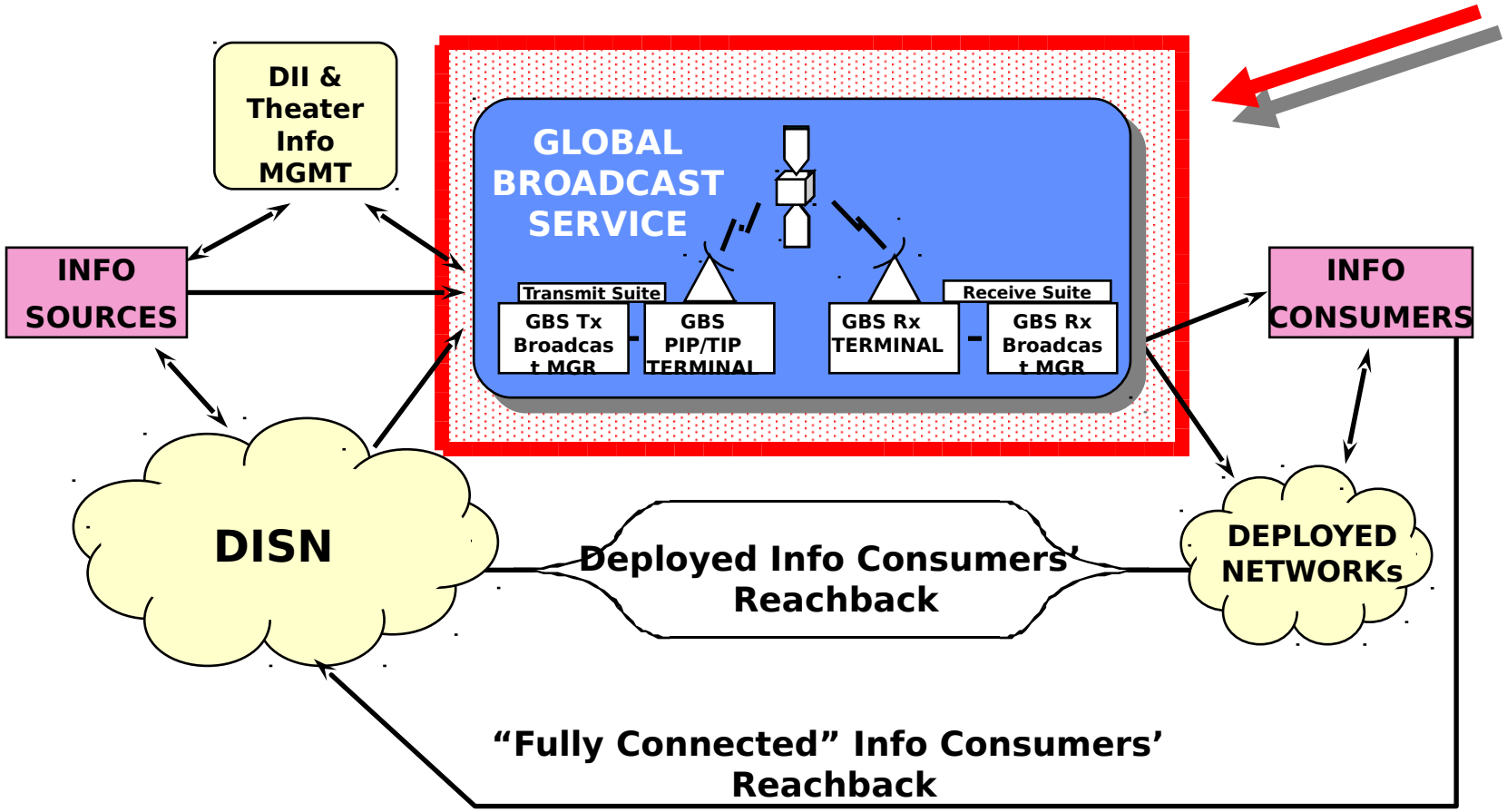
Test Planning & Documentation	System Design & Performance	Test Assets & Support	Operational Readiness
9 Elements	9 Elements	11 Elements	4-
32 sub-elements	42 sub-elements	42 sub-elements	8

GBS Program Plan for OTR (cont)

2. GBS PEO Certifies that the GBS system is ready to commence MOT&E
   - Activities tracked using OT prep Templates and individual Action Plans & Certification Readiness Reviews (CRRs)
   - PEO Decision Brief sked for mid CY00

1. Engage User Community in OR preparation

Operational (Test) Readiness Scope



Problem #1

- Not every Element that is commonly believed to be part of overall Operational Readiness is actually within the scope of the OT&E.

Readiness…

- Technical Readiness
  - Elements mostly Objective (Specs)
  - Evaluated by measuring numeric values
- Operational Readiness *(OR)*
  - Elements mostly Subjective (CONOPS)
  - Evaluated by measuring effectiveness & mission utility

…***OR*** is defined by the **maturity** of the aggregated Elements that comprise it.

Operational Readiness
("Operationalizing" GBS)

- When can we realistically say GBS is Operationally Ready? ***(OR)***

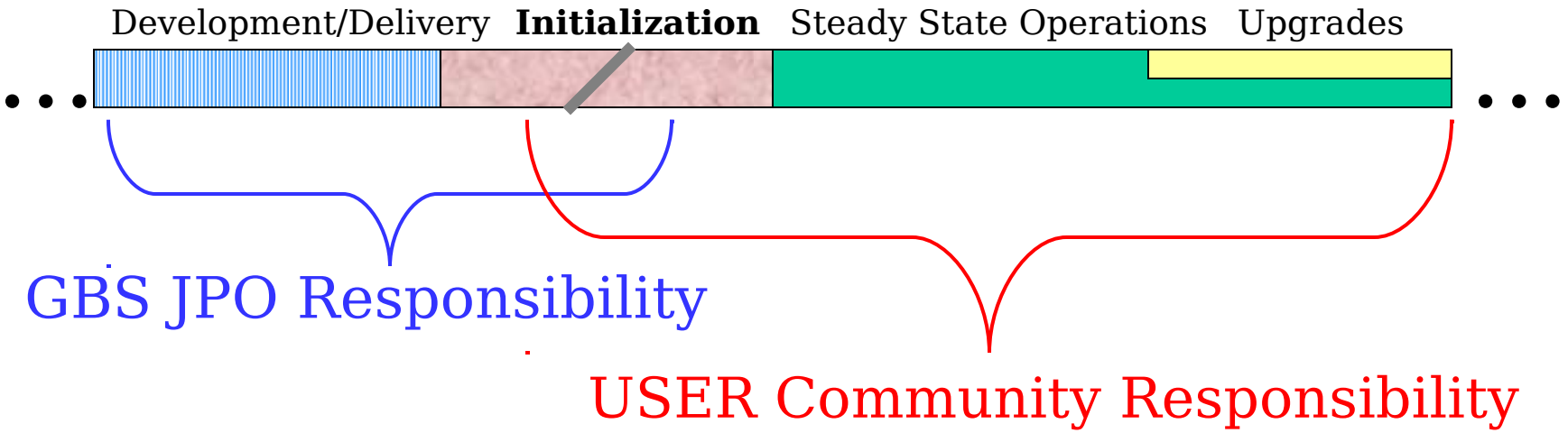
1. The **System** is **Ready** ***(SR)***

AND...

2. The **User Community** is **Ready** ***(UR)***

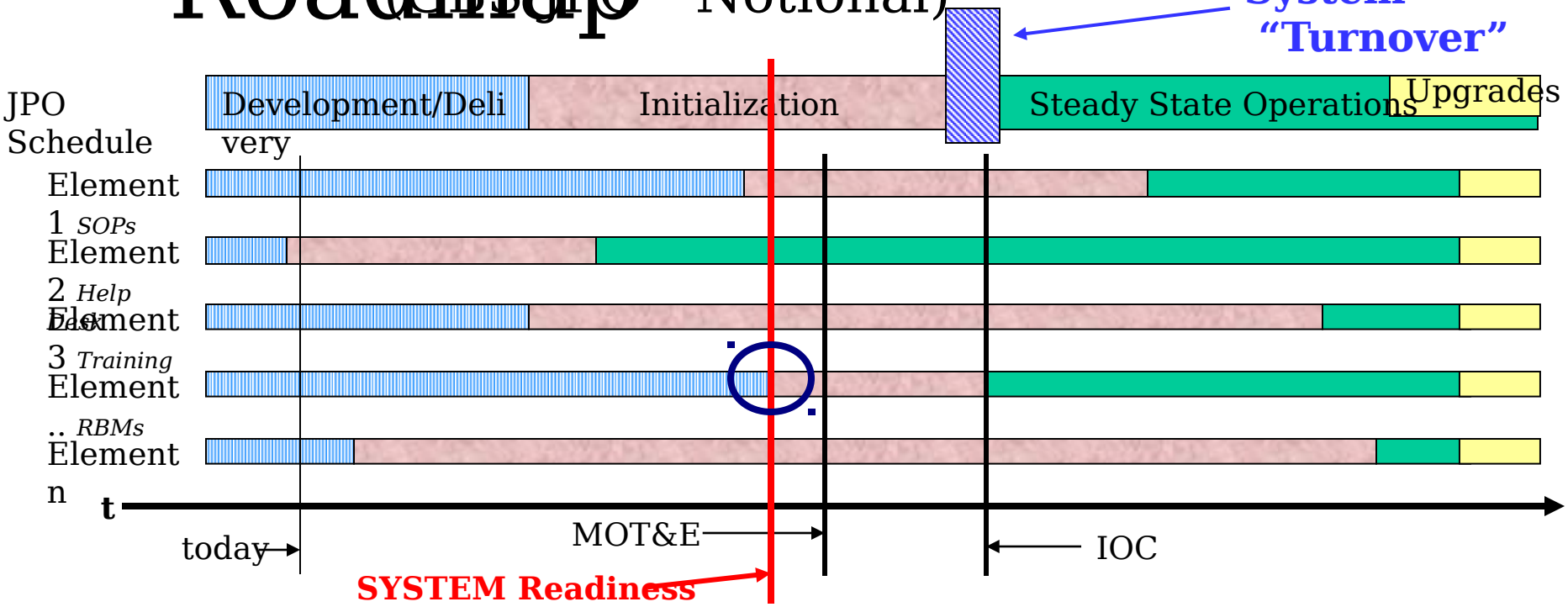
So, A Readiness Roadmap...

Program “Stages”



By definition, somewhere in the Initialization Stage, enough Elements have reached sufficient maturity to allow us to declare achievement of ***Operational Readiness*** (OR)

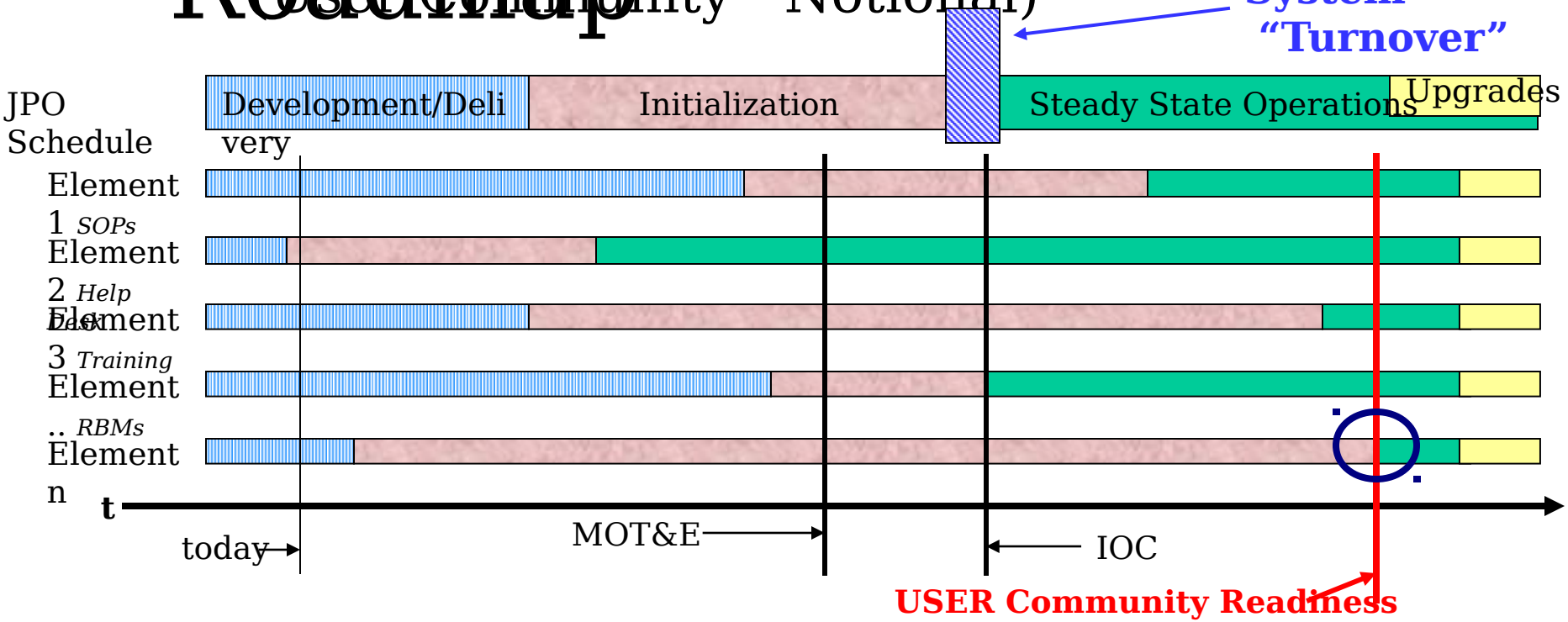
System Readiness (SR) Roadmap (GBS JPO - Notional)



- GBS JPO is managing all Elements necessary to achieve **System** Readiness *(SR).* (...OTRR templates & action plans...)
  - Development/Delivery and Initialization of JPO Elements

User Readiness (UR) Roadmap

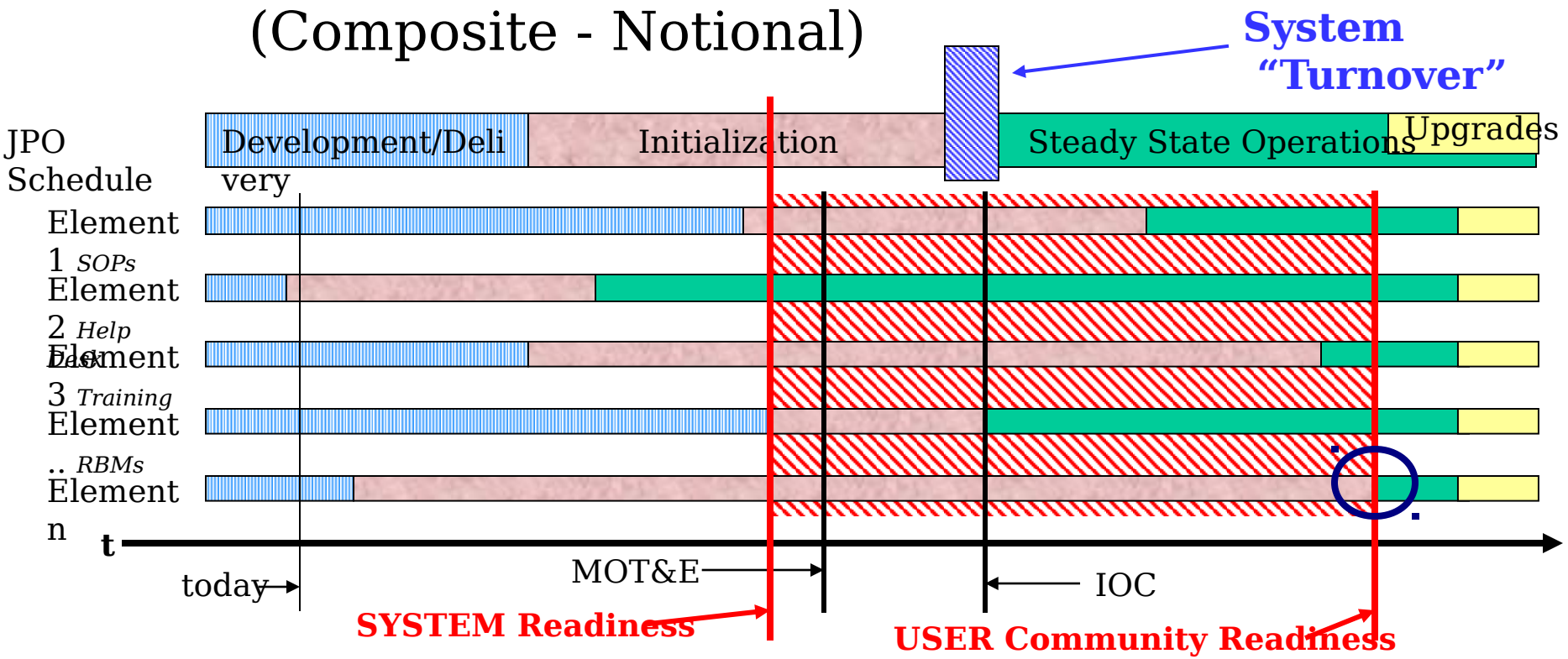
(User Community - Notional)



- User Community should be managing all Elements necessary to achieve **USER** Readiness *(UR).*
  - Initialization of USER Elements

Ops Readiness Roadmap

(Composite - Notional)

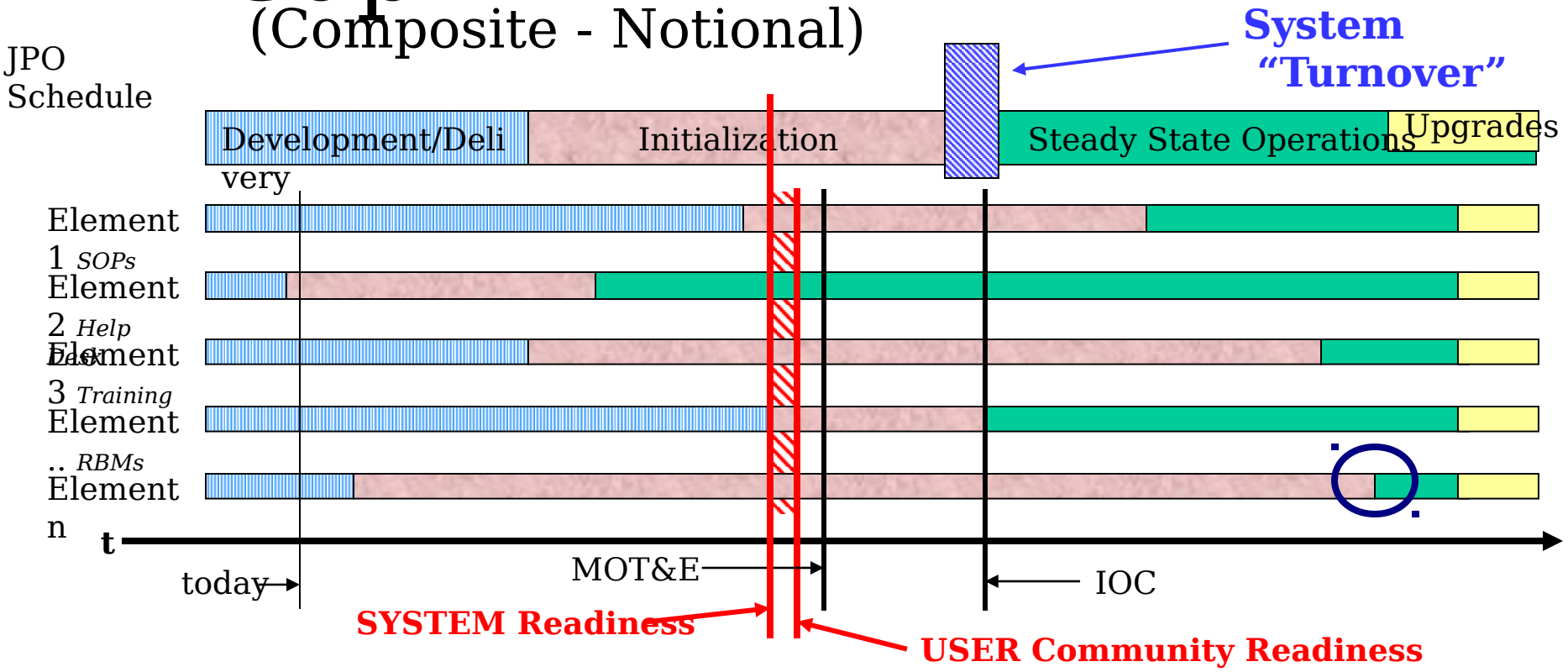


Problem #2

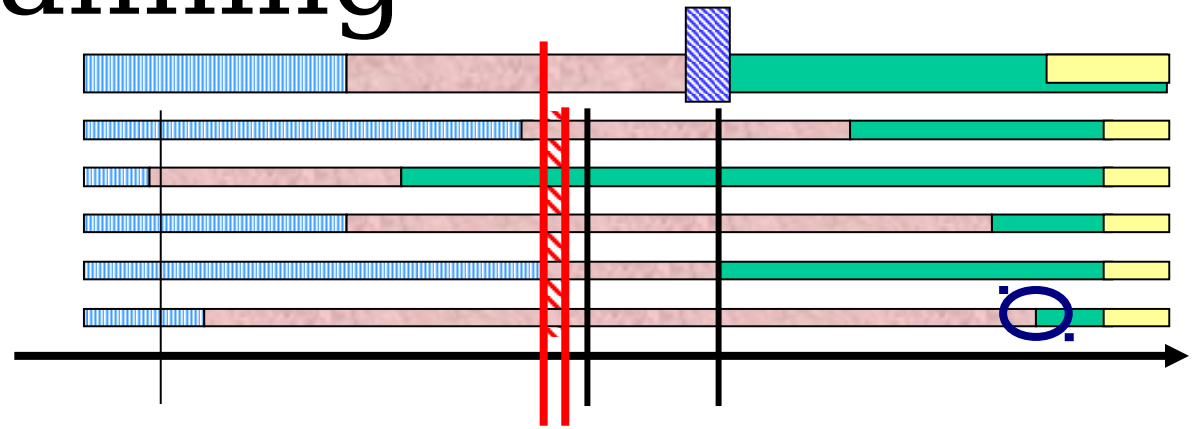
- If OR = SR + UR, Then we seem to have a Readiness Preparation ***GAP***.

Ops Readiness Goal - No "Gap"

(Composite - Notional)



OR Joint Action Planning



Q - When does a “Roadmap” become an actionable “Plan”?

A - When all **Responsible Parties** <u>agree to participate</u> in pursuing the solution within an established framework.

OR Elements

- **Elements** currently being worked, facilitated, or monitored.
  - Doctrine
  - TTPs
  - User Training
  - IDM
  - JBC Assessment
  - RBM Deployment
  - OT Scenarios
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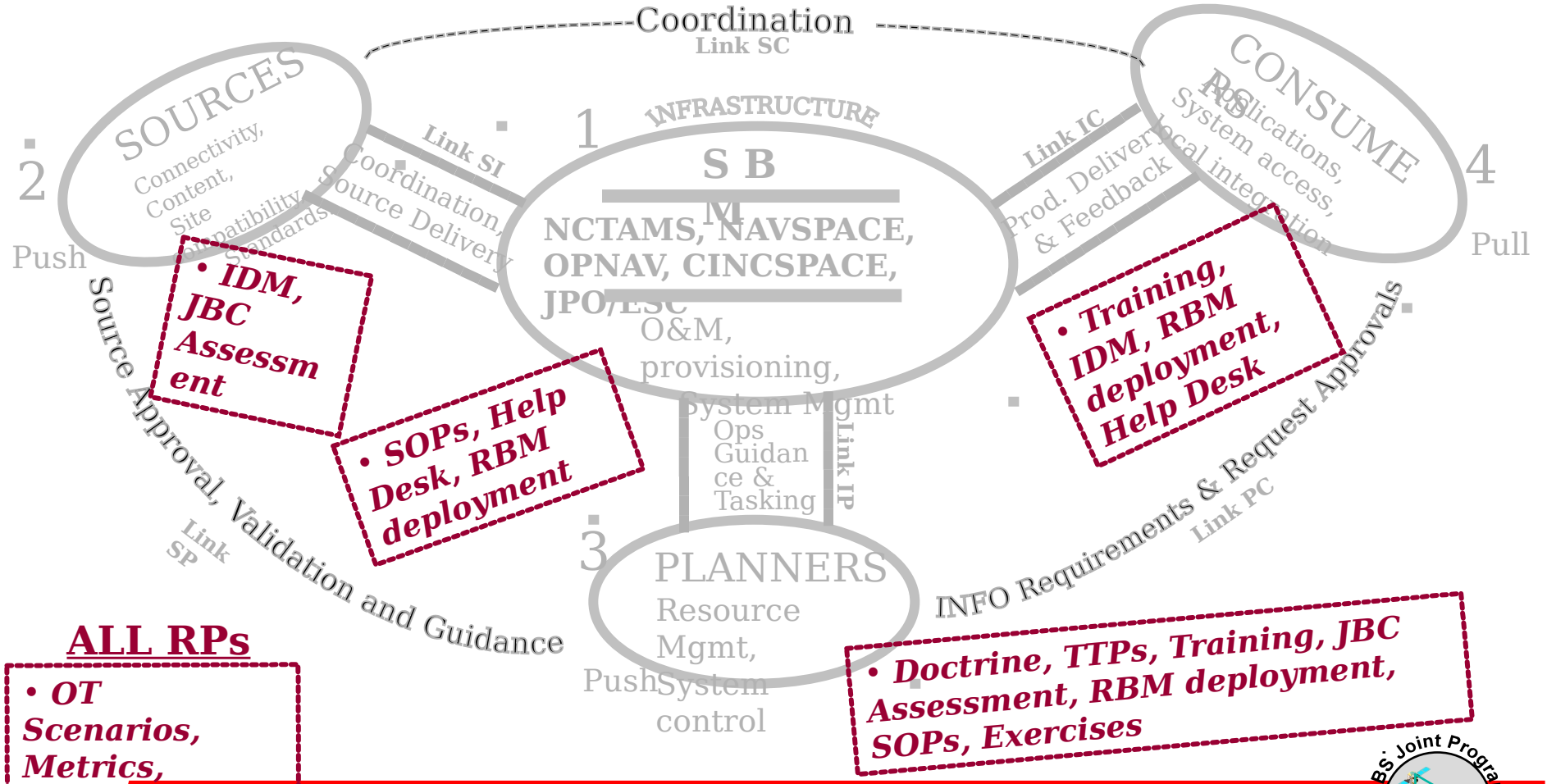
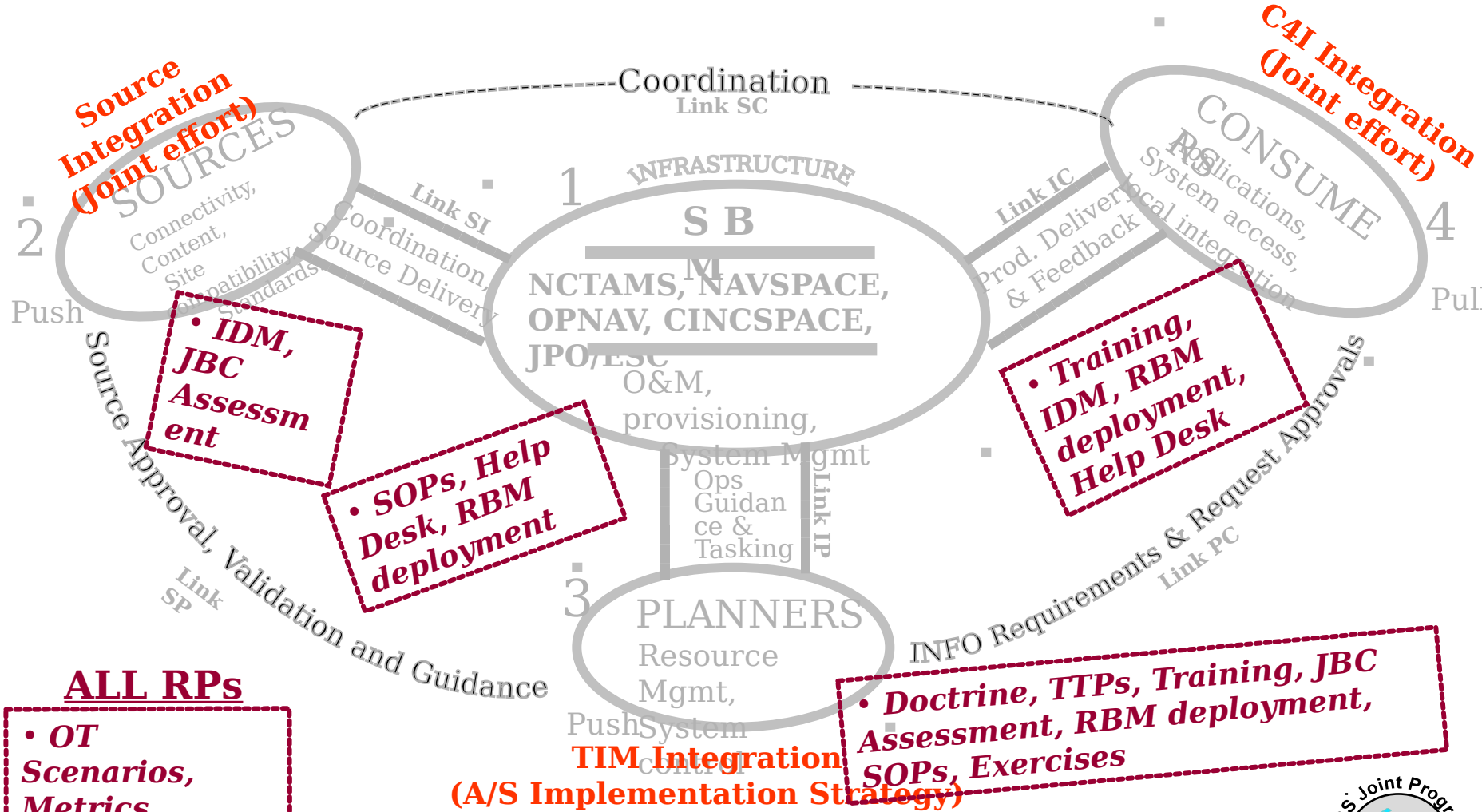
OR Element Mapping

- Which Responsible Parties have the most interest in which OR Elements?

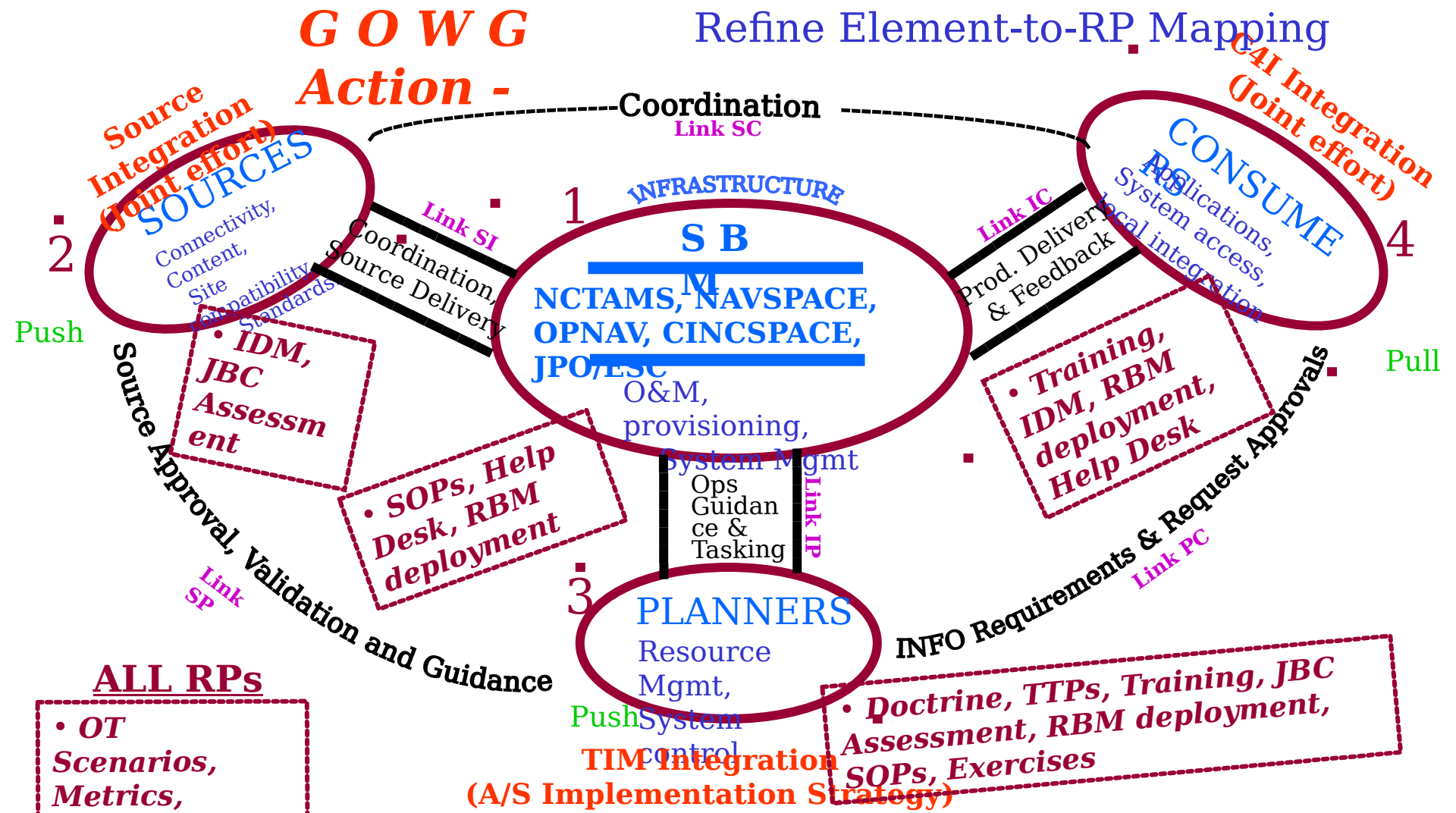


"Enabling" Elements

- Significant ongoing activity for each Category of User



The Whole Thing



Element Maturity - JPO

- Elements planned to be **substantially mature** prior to MOT&E; primarily accomplished by GBS Programmatic activity.
  - **User Training:** JPO Supportability deliverable; already defined.
  - **RBM Deployment:** JPO Fielding deliverable; 17 in CONUS.
  - **OT Scenarios:** JPO Operations deliverable; to be used during MOT&E.
  - **SOPs:** JPO Operations deliverable; SBM-centric; substantially complete.
  - **Help Desk:** JPO Operations activity; maturity directly proportional to time spent actually operating.

Element Maturity - JPO/RPs

- Elements expected to be **partially mature** prior to MOT&E; accomplished by GBS Programmatic **and** User Community activity.
  - JBC Assessment: JBC, GBS JPO, & IDM partnership to evaluate GBS/IDM mission utility; JBC lead.
  - Metrics: Defining the GBS Operational measures of effectiveness and means of collecting performance data; SSE/SOM lead
  - Reporting: Defining the requirements for GBS System status reporting and the means/media/format for reports; SSE/SOM lead

Element Maturity - JPO/RPs (cont)

- Elements expected to be **partially** mature… GBS JPO & Users….
  - C4I Integration: Major effort by 6 Centers to address the highest priority (Consumer) integration issues prior to RS fielding; JS lead
  - Source Integration: Major effort by JPO and Source providers to address priority listed (CINC) source/product requirements; JS lead.
  - Exercises: Use of GBS Phase I in exercise to continue to end of FY00; Phase II use in exercises to be maximized, dependent upon resource availability and appropriate exercise opportunities.

Element Maturity - JPO/RPs (cont)

- Elements expected to be **partially** mature… GBS JPO & Users….
  - "Links": Wide variety of activity to Element maturity; activity to complete is largely dependent upon RPs at each end of the Link.
  - "User access"/tasking: Inc 1E system (stopgap) procedures in place; Threshold system procedures TBD, but will reflect system capability delivered.

Element Maturity - RPs

- Elements expected to be **immature** and <u>not</u> included in MOT&E; accomplished mostly by User Community activity.
  - Doctrine:
  - TTPs:
  - System Management:
  - IDM:

Problem #2

- No clear responsibility for maturing all these Elements.

An OR Element

- "How do we Task GBS?",
  - i.e., User "Access"

User “Access” (Truths)

- Implicit in the installation of an RBM at a site is the approval for that site to receive a broadcast, subject to RBM & User Profile approval
- Implicit in the connection of a Source which is broadcast-compatible and willing, to the DISN, is the approval to include that Source in a broadcast, subject to Profile approval.
- Implicit in allowing a Planner/OPCON to have an “account” on the SIPRNET that allows write privileges to the SBM Tools, is the approval to control the sources, consumers, and actual broadcast.

USER "Access" Prerequisites

- Establish SBM Ops/ SOPs/ infrastructure, & integrate sources/ install RBMs.
- Approve/execute SIPRNET connectivity for all authorities who will engage in GBS tasking/control activities
- Establish Missions, Roles, Programs, Categories
- Initialize Profiles: Source, planner, RBM, Users
- SBM builds, & TIM approves, the Broadcast

Non-routine requests

- satellite access (TIP maybe)
- exercises ?
- demos
- special operations
- new information requirements